

**AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) A heat exchanger comprising:

a fin set (59) including a plurality of fins (57) arranged parallel to each other with an interval therebetween;

a metallic framework (61) arranged to surround end faces of the fin set (59) in the arrangement direction of the fins and end faces of the fin set (59) in the lengthwise direction of the fins; and

a serpentine heat transfer tube (63) having straight parts (63a) penetrating the fin set (59) in the arrangement direction of the fins and U-shaped parts (63b) protruding out of the framework (61), wherein

adsorbents capable of adsorbing moisture from the air and desorbing the moisture into the air is supported on the surfaces of the fin set (59), the framework (61) and the heat transfer tube (63), respectively.

2. (Currently Amended) The heat exchanger of Claim 1 further comprising

a connector tube (65) for connecting the heat transfer tube (63) with a refrigerant pipe, wherein

an adsorbent capable of adsorbing moisture from the air and desorbing the moisture into the air is supported on the surface of the connector tube (65).

3. (Original) The heat exchanger of Claim 1, wherein

the adsorbents are of the same kind.

4. (Currently Amended) The heat exchanger of Claim 1, wherein

the thickness of the adsorbent layer supported on the surfaces of the fins (57) is not less than 50  $\mu\text{m}$  and not more than 500  $\mu\text{m}$ .

5. (Original) The heat exchanger of any one of Claims 1 to 4, wherein

a fin pitch is not less than 1.2 mm and not more than 3.5 mm.

6. (Original) The heat exchanger of any one of Claims 1 to 4, wherein air velocity is not less than 0.5 m/s and not more than 1.5 m/s.

7. (New) The heat exchanger of claim 3, wherein adsorbent is applied to the heat exchanger by immersing a heat exchanger assembly comprising said fin set, said framework, and said serpentine heat transfer tube in a slurry mixed with the adsorbent.

8. (New) The heat exchanger of claim 1, wherein said adsorbents comprise at least one of zeolite, silica gel, activated carbon, organic polymeric material having a hydrophilic or water adsorptive functional group, ion exchange resin material having a carboxyl or sulfonic acid group, functional polymer material, sepiolite, imogolite, allophane, kaolinite.

9. (New) The heat exchanger of claim 1, wherein a thickness of said adsorbents is determined by a relationship between the number of fans, fan efficiency, and fan volume.